

DEPARTMENT of ENVIRONMENTAL SERVICES
Water Supply & Pollution Control Division - Biology Bureau

LAKE TROPHIC DATA

MORPHOMETRIC:

Lake: DURAND POND	Lake Area (ha): 4.05
Town: RANDOLPH	Maximum depth (m): 3.2
County: Coos	Mean depth (m): 1.1
River Basin: Androscoggin	Volume (m ³): 44500
Latitude: 44°22'23" N	Relative depth: 1.4
Longitude: 71°17'17" W	Shore configuration: 1.27
Elevation (ft): 1268	Areal water load (m/yr): 3.98
Shore length (m): 905	Flushing rate (yr ⁻¹): 3.60
Watershed area (ha): 25.8	P retention coeff.: 0.70
% watershed ponded: 0.0	Lake type: artificial

BIOLOGICAL:

		26 February 1998	15 July 1997
DOM. PHYTOPLANKTON (% TOTAL)	#1	SPARSE - NO DOMINANT	FILAMENTOUS SPP. 80%
	#2		
	#3		
PHYTOPLANKTON ABUNDANCE (units/mL)			
CHLOROPHYLL-A (µg/L)			2.02
DOM. ZOOPLANKTON (% TOTAL)	#1	(ZOOPLANKTON SPARSE)	CALANOID COPEPOD 57%
	#2		
	#3		
ROTIFERS/LITER		22	20
MICROCRUSTACEA/LITER		22	125
ZOOPLANKTON ABUNDANCE (#/L)		44	150
VASCULAR PLANT ABUNDANCE			Sparse
SECCHI DISK TRANSPARENCY (m)			3.2
BOTTOM DISSOLVED OXYGEN (mg/L)		8.5	9.3
BACTERIA (E. coli, #/100 ml)	#1		4
	#2		8
	#3		

SUMMER THERMAL STRATIFICATION:

weakly stratified

Depth of thermocline (m): None
Hypolimnion volume (m³): None
Anoxic volume (m³): None

CHEMICAL:

Lake: DURAND POND

Town: RANDOLPH

	26 February 1998		15 July 1997		
DEPTH (m)	1.5		1.0		2.0
pH (units)	5.5		6.4		6.3
A.N.C. (Alkalinity)	3.7		2.0		2.2
NITRATE NITROGEN	0.15		< 0.05		< 0.05
TOTAL KJELDAHL NITROGEN	0.10		0.20		0.10
TOTAL PHOSPHORUS	0.011		0.012		0.012
CONDUCTIVITY (μ mhos/cm)	57.3		26.8		24.6
APPARENT COLOR (cpu)	10		6		8
MAGNESIUM			0.35		
CALCIUM			1.2		
SODIUM			2.9		
POTASSIUM			0.41		
CHLORIDE	10		4		3
SULFATE	4		3		3
TN : TP	23		17		8
CALCITE SATURATION INDEX			4.5		

All results in mg/L unless indicated otherwise

TROPHIC CLASSIFICATION: 1997

D.O. S.D. PLANT CHL TOTAL CLASS

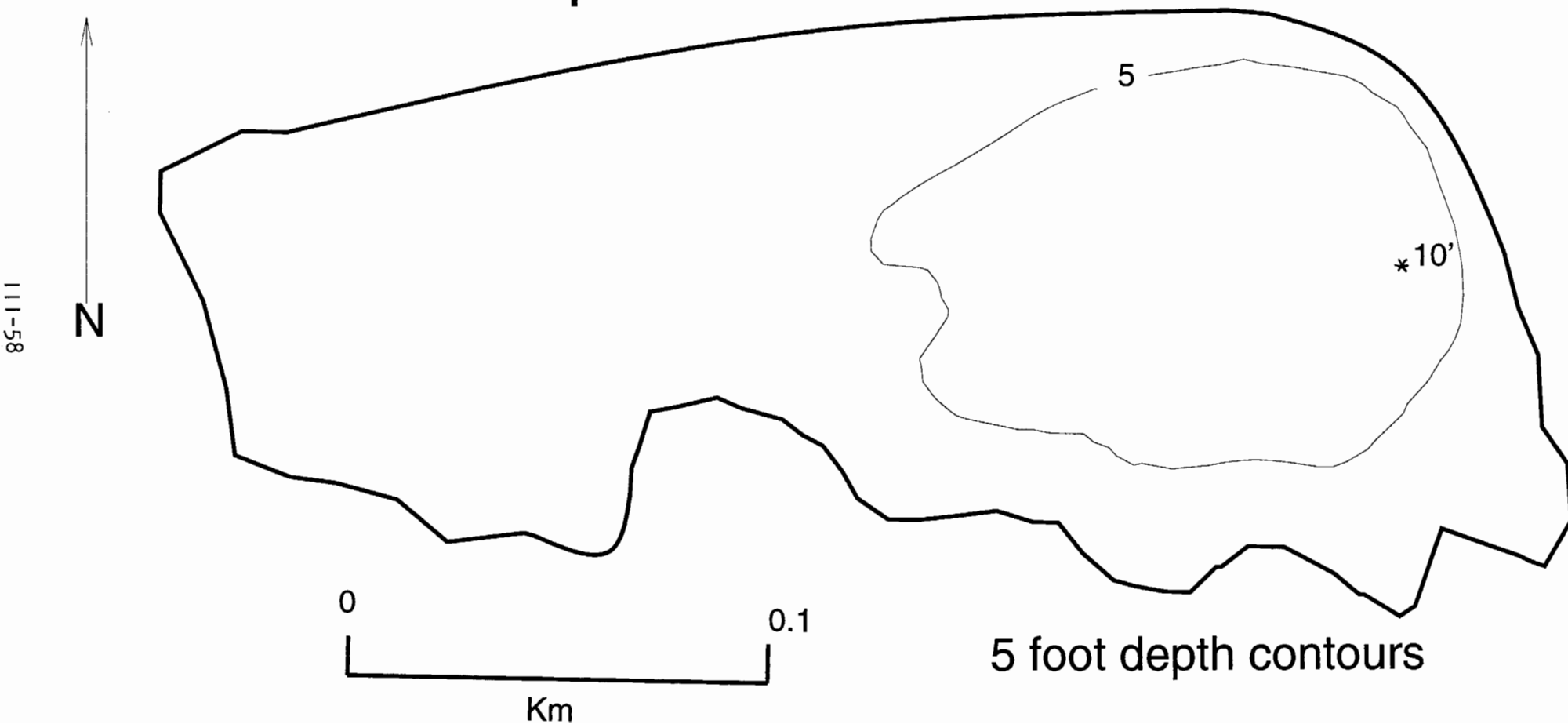
**	2	0	0	2	Oligo.
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COMMENTS:

1. This is a man-made impoundment, completed in 1964. It is surrounded by town-owned conservation lands maintained as a park and wildlife refuge. It reportedly was originally created around the turn of the century by diverting and damming part of the Moose River. However, the 1982 topographic map does not show Moose River entering the pond, and Moose River was not included in the watershed determination.

Durand Pond

Randolph



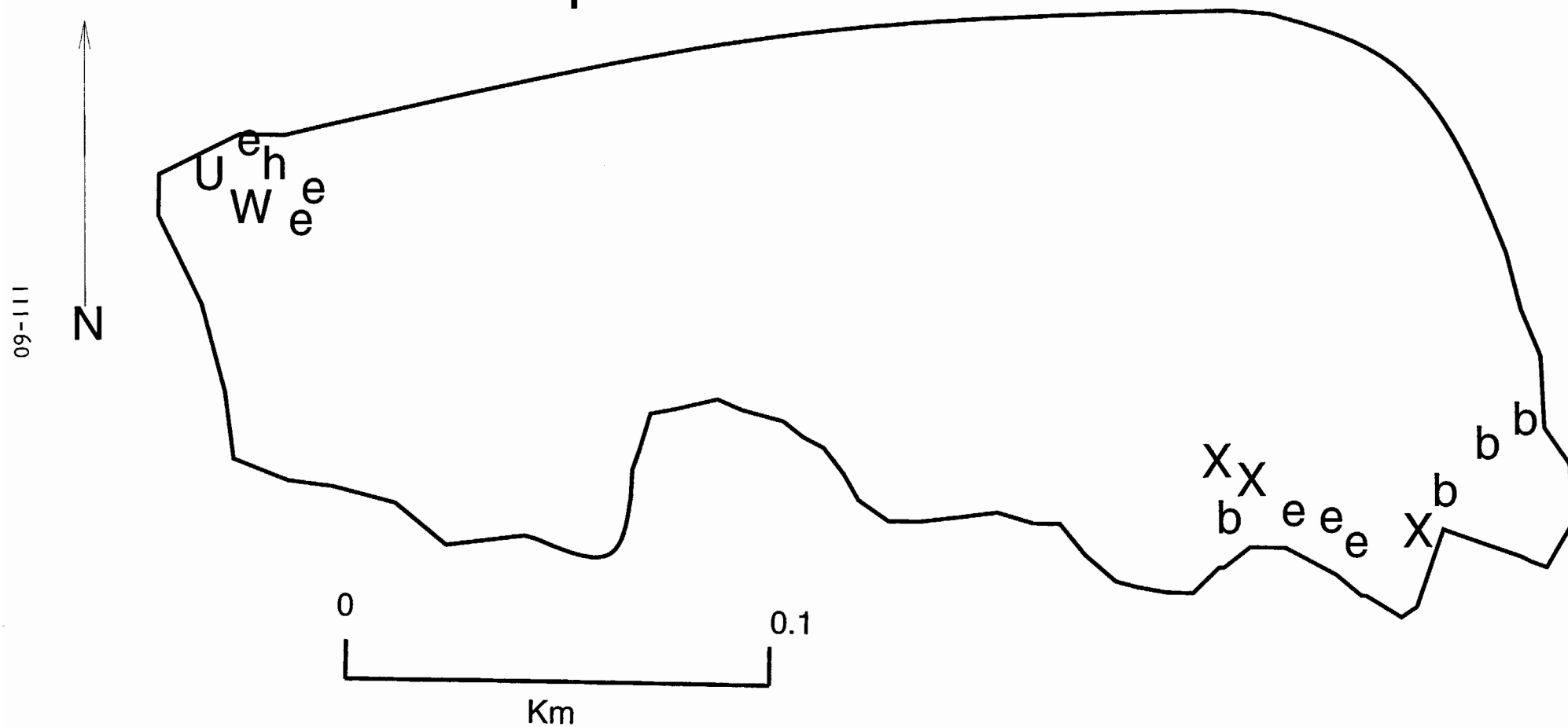
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COMMENTS :

*Dissolved oxygen values are in mg/L

Durand Pond

Randolph



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